

REMARKS

The Office Action dated August 14, 2008, has been received and carefully noted. The following remarks are submitted as a full and complete response thereto. Claims 1-24 are currently pending in the application, of which claims 1, 13, and 19 are independent claims.

In view of the following remarks, Applicants respectfully request reconsideration and timely withdrawal of the pending rejections to the claims for the reasons discussed below.

Claim Rejections under 35 U.S.C. §103(a)

The Office Action rejected claims 1-24 under 35 U.S.C. §103(a) as being allegedly unpatentable as obvious over Knight, *et al.* (United Kingdom Publication No. GB 2327175) (“Knight”) in view of Owensby (U.S. Publication No. 2002/0077130). Applicants respectfully submit that the claims recite subject matter that is neither disclosed nor suggested in the combination of Knight and Owensby.

Claim 1, upon which claims 2-12 depend, recites a method for determining behavior patterns of users of a telecommunication system based on information collected from the telecommunication system. The method includes defining at least one variable or a combination of variables of the telecommunication system, and filtering user-specific information corresponding to the defined at least one variable or the combination of variables from the information collected from the telecommunication system. The

method also includes classifying the users of the telecommunication system based on the filtered user-specific information into various classes indicative of a user's behavior patterns during use of the telecommunication system.

Claim, 13, upon which claims 14-18 depend, recites a system for determining users' patterns of behavior in a telecommunication system. The system includes defining means for defining at least one variable or a combination of variables of the telecommunication system, and filtering means for filtering user-specific information corresponding to the at least one variable or the combination of variables from the user-specific information received in real time from the telecommunication system. The system also includes classifying means for classifying users of the telecommunication system based on said filtered user-specific information into various classes indicative of a user's behavior patterns during use of the telecommunication system. The system also includes analysis means for statistically analyzing the classification of the behavior patterns of users received from the classifying means and further for defining previously presented classes of behavior patterns.

Claim, 19, upon which claims 20-24 depend, recites a system for determining behavior patterns of users of a telecommunication system based on information collected from the telecommunication system. The system includes at least one base station, at least one mobile services switching center configured to establish a connection to a mobile station and further configured to generate connection information, and at least one network management system configured to monitor and manage an operation of the

telecommunication system. The system also includes a customer register configured to receive the connection information from the at least one mobile services switching center, a statistical unit configured to receive statistical information from the at least one network management system, and a filter configured to filter said user-specific information corresponding to at least one variable or a combination of variables from the user-specific information received in real time from the telecommunication system, wherein said at least one variable or the combination of variables are defined in the telecommunication system. The system also includes a classifier configured to classify users of the telecommunication system based on said filtered user-specific information into various classes indicative of a user's behavior patterns during use of the telecommunication system.

As will be discussed below, the combination of Knight and Owensby would fail to disclose or suggest every feature recited in claims 1-24, and therefore fails to provide the features discussed above.

Knight is directed to a cellular network. In the cellular network, a base station analyzes data associated with the calls made by users of that station in order to form usage profiles of users. The profiles are stored in a database, which is then used to calculate future usage. Based on those calculations, speculative connections are made available to specific users at times that are optimum from the station's perspective in anticipation of demand. This is particularly applicable to data networks whereby users typically access data services, such as Internet pages, at the same time each day. A

change analyzer may be included in order to determine the degree of change occurring in data pages and decide whether a whole page or just modifications to the page should be sent to the subscriber. Call related data may include dialed call destination, time of call, location from which call is dialed out/received, access to the Internet, or access to information services (Knight, Abstract).

Owensby is directed to a system and method for providing targeted messages based on a wireless mobile location. More particularly, Owensby describes a system and method for inserting commercial information or advertisements before and during C/PCS and GMPCS communications that are targeted to a subscriber of a service (Owensby, Abstract, paragraph [0010]).

Assuming *arguendo* that the teachings of Knight could be combined with the teachings of Owensby, the combination of Knight and Owensby would fail to disclose or suggest each and every feature recited in claim 1, and similarly recited in claims 13 and 19. Specifically, the combination of Knight and Owensby would fail to disclose or suggest, at least, “filtering user-specific information corresponding to the defined at least one variable or the combination of variables from the information collected from the telecommunication system; and classifying the users of the telecommunication system based on the filtered user-specific information into various classes indicative of a user’s behavior patterns during use of the telecommunication system,” as recited in claim 1, and similarly recited in claims 13 and 19 (emphasis added).

The Office Action alleged that Knight discloses the step of filtering user-specific information, citing page 3, line 16, to page 4, line 6, and page 4, line 31, to page 5, line 34. In response to Applicants' arguments, the Office Action alleged that Knight discloses the aforementioned claim features, stating that Knight teaches, "the user's call is treated based on the user's profile stored in the user's database in the telecommunication system" (See *Response to Arguments* on page 6). The Office Action concluded that the explanations provided above are directed to telecommunication systems and a method for the user's call being treated based on the user's profile stored in the user's database in the telecommunication system, and therefore, Knight still teaches the claimed limitations (See *Response to Arguments* on page 6).

However, a review of these passages demonstrates that Knight fails to disclose or suggest the aforementioned claim features. Further, the Office Action's remarks failed to address each of Applicant's arguments demonstrating that Knight and Owensby, whether taken alone or in combination, fail to disclose or suggest, at least, "filtering user-specific information corresponding to the defined at least one variable or the combination of variables from the information collected from the telecommunication system; and classifying the users of the telecommunication system based on the filtered user-specific information into various classes indicative of a user's behavior patterns during use of the telecommunication system," as recited in claim 1, and similarly recited in claims 13 and 19 (emphasis added), as will be discussed below.

Furthermore, the Office Action acknowledged that at least Knight is directed to a *single* user at any point in time (See *Response to Arguments* on page 6). Whereas, certain embodiments of the present invention are directed to a telecommunication system, wherein the data of *all users* are collected, filtered, and classified, in order to perform an analysis at the system level and to regulate parameters of the system. System level resources are therefore configured to yield significant advantages which are discussed in the specification.

Thus, Knight discloses automatic downloading of data according to predicted data requirements. A base station analyzes data associated with calls made by users of that station in order to form user usage profiles. The profiles are stored in a database, which are then used to calculate or predict future usage. Based on those calculations, speculative connections are made available to specific users at presumably optimum times from the station's perspective in anticipation of demand. This is particularly applicable to data networks whereby users typically access data services, such as Internet pages, at the same time each day. A change analyzer can determine a degree of change occurring in data pages, and can decide whether a whole page or just the modifications to the page should be sent to the subscriber. Call related data may include dialed call instructions, time of call, the location from which a call is dialed out/received, access to the Internet, and access to information services (Knight, Abstract; page 3, line 16, to page 5, line 34).

Knight makes no mention of “filtering user-specific information corresponding to the defined at least one variable or the combination of variables from the information collected from the telecommunication system” (emphasis added).

As noted in the Office Action on page 4, Knight fails to disclose or suggest, at least, “classifying the users of the telecommunication system based on the filtered user-specific information into various classes indicative of a user’s behavior patterns during use of the telecommunication system,” as recited in claim 1, and similarly recited in claims 13 and 19 (emphasis added)

Accordingly, Applicants respectfully submit that Knight fails to disclose or suggest any method or system which defines variables, filters user-specific information, and classifies users based upon the filter user-specific information as recited in claim 1, and similarly recited in claims 13 and 19.

Applicants respectfully submit that Owensby fails to cure the deficiencies of Knight.

Owensby merely discloses Subscriber Profile Data, which may include demographic data and/or personal preference data, each of which is entered by a wireless mobile subscriber or selected by sponsors of messages to be targeted to the subscriber. Owensby further discloses that messages are targeted to the subscriber identified by the subscriber’s Subscriber Identification Code based on the Subscriber Profile Data in addition to the location of the wireless mobile device (Owensby, paragraph [0013], [0053], and [0055]).

Owensby further discloses a Call Identification Code and Date and Time Data used to identify a wireless mobile subscriber communication relative to other wireless mobile communications occurring at or about the same time. The Date and Time Data determines and records the date and time of the wireless mobile communication. Together with the Wireless Mobile Location Data, the Call Identification Code and the Date and Time Data permit Historical Response Data to be compiled and stored in a conventional electronic data input, storage and retrieval device. From the Historical Response Data, historical movement patterns of the subscribers can be determined. The Historical Response Data is continuously updated to determine the most recent responses to the targeted messages previously provided to the subscriber. Hence, the Historical Response Data permits messages, and in particular commercial information and advertisements to be targeted to as broad or narrow a range of subscribers as desired by the sponsor of messages (Owensby, paragraph [0014]-[0015], [0053], and [0055]).

The teachings of Owensby make no mention of “defining at least one variable or combination of variables of a telecommunication system,” as recited in claim 1, and similarly recited in claims 13 and 19. Furthermore, Owensby fails to disclose or suggest, at least, “filtering user-specific information corresponding to the defined at least one variable or the combination of variables from the information collected from the telecommunication system.” Rather, Owensby merely describes a selection process based completely on data that is not collected from the telecommunication system, e.g.

subscriber profile data that was manually entered, messages previously provided to the subscriber, etc. (Owensby, paragraphs [0053]-[0055]).

Furthermore, Owensby fails to disclose or suggest, at least, “classifying the users of the telecommunication system based on the filtered user-specific information into various classes indicative of a user’s behavior patterns during use of the telecommunication system” (emphasis added). Specifically, Owensby fails to mention or refer to *various classes* indicative of the user’s behavior patterns during use of the telecommunication system. Rather, Owensby’s selection process is performed based on collected/manually configured personal subscriber data and the historical response data related to the messages provided previously to the subscriber (Owensby, paragraph [0055]). Therefore, a *classification of a user* [singular] of the telecommunication system in Owensby is not “based on the filtered user-specific information into various classes indicative of a user’s behavior patterns during use of the telecommunication system,” as recited in claim 1, and similarly recited in claim 13 and 19 (emphasis added).

Furthermore, Knight and Owensby are both targeted to a single user at any point in time. Knight monitors the call data of each user separately to predict future usage of service for that individual user. Knight then initiates actions to prepare data related to the service by the individual user in advance, in order to allow a faster and more efficient provisioning of the service when it is used by the user the next time. Owensby monitors collected individual user data collected, manually configured user data, and the historical

response data related to the messages provided previously to the subscriber to select targeted messages, such as advertising material, for that individual user.

Whereas, the present invention is directed to a telecommunication system, wherein the data of all users are collected, filtered, and classified, in order to perform an analysis at the system level and to regulate parameters of the system. System level resources are therefore configured to yield the significant advantages which are discussed in the specification.

Accordingly, the combination of Knight and Owensby would fail to disclose or suggest every feature recited in claim 1, and similarly recited in claims 13 and 19.

Claims 2-12 depend from claim 1. Claims 14-18 depend from claim 13. Claims 20-24 depend from claim 19. Accordingly, claims 2-12, 14-18, and 20-24 should be allowable for at least their dependency upon an allowable base claim, and for the specific limitations recited therein.

Therefore, Applicants respectfully request withdrawal of the rejections of claims 1-24 under 35 U.S.C. §103(a), and respectfully submit that claims 1, 13, and 19, and the claims that depend therefrom, are in condition for allowance

CONCLUSION

In conclusion, Applicants respectfully submit that Knight and Owensby, whether taken alone or in combination, fail to disclose or suggest each and every feature recited in claims 1-24. The distinctions previously noted are more than sufficient to render the

claimed invention non-obvious. It is therefore respectfully requested that all of claims 1-24 be allowed, and this present application be passed to issuance.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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